

REMARKS

Claims 3-12, 14-21, and 25-31 are pending in the application. Claims 23 and 24 have been cancelled without prejudice for protecting the subject matter thereof in a divisional patent application. By this amendment, new claims 32-34 have been added, and claims 25-27 have been amended.

Applicant believes the amendments made herein add no new matter. Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto. Reconsideration and reexamination of the application is respectfully requested in view of the amendments and the following remarks.

Claims 3, 5-10, 12, 14-21, and 25-31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,424,519 to Salee. The rejection is respectfully traversed.

Salee discloses a microwave-activated thermal storage unit (20) that can be incorporated into a seat cushion (3) having a foam pad (26) having an outer cover or sheath (25). The thermal storage unit (20) resides between first and second pads (28) and (29) of the foam pad (26). The seat cushion (3) can include carrying handles (5) and (6) and can be secured in a folded condition by a Velcro® closure (9) having a strap (10) with a first member (11) that mates with a second member (12) on the underside of the seat cushion (3).

As the Examiner is well aware, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. As the Salee patent does not disclose every element of the claims, the rejection must fail.

Claim 25 as amended calls for a bare floor cleaner to comprise a cleaning head, an upright handle pivotally mounted to the cleaning head so that a user can grasp the handle and move the cleaning head across the surface to be cleaned from an upright position, a liquid impregnated cleaning implement associated with the cleaning head and adapted to move along a

surface to be cleaned, and a self-contained thermal storage body associated with the cleaning head and adjacent to the cleaning implement.

The Examiner avers that the Salee outer cover or sheath (25) meets the claim limitation of the cleaning implement because it could perform a cleaning function and that the cleaning function is merely intended use. On the contrary, the Applicant disagrees with this position as “cleaning” as a descriptor for “implement” infers structural limitations. The implement, when a fabric, can be a “wide range of fabrics adapted for cleaning bare floors” (see paragraph [0024] of the application). To clean, the implement must be able to pick up dust and debris, and all fabrics are not inherently adapted for cleaning. Thus, the Salee disclosure of a fabric cover does not meet the cleaning implement limitation simply because the cover is made of fabric.

In any case, claim 25 has been amended to further specify that the cleaning implement is impregnated with liquid, and Salee has no disclosure of a liquid impregnated outer cover. Not only is a liquid impregnated outer cover absent from the Salee disclosure, but a person skilled in the floor cleaning art would dismiss Salee as a cleaning element. There is no motivation to impregnate liquid into the Salee outer cover. A liquid impregnated outer cover in the Salee seat cushion would undesirably result in wetting the rear end of the user upon sitting on the cushion and/or wetting of the seat upon which the seat cushion rests.

Salee further does not disclose the claimed upright handle. The Examiner states that the handles (5) and (6) or the strap (10) of the closure meet the upright handle limitation in claim 25 as they can be considered upright with respect to the surface from which they extend. However, an upright handle in the floor cleaner art and as described in the present application is a handle that a user can grasp while standing in an upright position for moving the cleaner across the surface to be cleaned. For clarity, Applicant has amended claim 25 to further describe the upright handle as such. None of the handles (5) and (6), the strap (10), or any other elements of the Salee seat cushion is able to be grasped by a user standing in an upright position to move the device across a surface; therefore, Salee does not disclose the claimed upright handle.

From the above discussion, it follows that Salee does not disclose at least the liquid impregnated cleaning implement and upright handle of claim 25. Salee, therefore, does not anticipate claim 25, and claim 25 is patentable over Salee. Claims 3, 5-10, 12, 20, and 21

depend directly or indirectly from claim 25 and are not anticipated by and are patentable over Salee for at least the same reasons as claim 25.

Claim 26, another independent claim, is similar to claim 25 except that the thermal storage body has differing limitations. Because claim 26 has the same liquid impregnated cleaning implement and upright handle elements as claim 25, the arguments presented above for claim 25 apply to claim 26 and will not be repeated here for brevity. It follows that claim 26 is not anticipated by and is patentable over Salee for at least the same reasons as claim 25. Claims 14-19 depend directly or indirectly from claim 26 and are not anticipated by and are patentable over Salee for at least the same reasons as claim 26.

Claim 27, another independent claim, is also similar to claim 25 except that claim 27 is for a hard surface cleaner rather than a bare floor cleaner and does not include the upright handle. Thus, claim 27 has the same liquid impregnated cleaning implement element as claim 25, and the arguments presented above for claim 25 with respect to the liquid impregnated cleaning implement apply to claim 27 and will not be repeated here for brevity. It follows that claim 27 is not anticipated by and is patentable over Salee as Salee does not disclose the liquid impregnated cleaning implement. Claims 28-31 depend directly or indirectly from claim 27 and are not anticipated by and are patentable over Salee for at least the same reasons as claim 27.

Claims 4, 7-11, 20, 25, 27, and 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,604,987 to Keltner. The rejection is respectfully traversed.

Keltner discloses a heated stadium cushion comprising a foamed plastic pad (100) having a plastic handle (102) and a slipcover (80) with a top panel (82) and a bottom panel (84). The slipcover (80) further includes a pocket-forming panel (96) for holding a chemical heating element (10), which is said to be any device that generates heat by means of a chemical reaction.

Because Keltner does not disclose, explicitly or inherently, every element of the claims, the rejection must fail. With respect to claim 25, Keltner does not disclose an upright handle pivotally mounted to the cleaning head so that a user can grasp the handle and move the cleaning head across the surface to be cleaned from an upright position and a liquid impregnated cleaning implement associated with the cleaning head and adapted to move along a surface to be cleaned.

Similar to the Salee rejection, the Examiner states that the Kelter outer layer (82, 84) meets the claim limitation of the cleaning implement because the “air-permeable fabric” of the outer layer (82, 84) could perform a cleaning function and that the cleaning function is merely intended use. On the contrary, the Applicant disagrees with this position as “cleaning” as a descriptor for “implement” infers structural limitations. The implement, when a fabric, can be a “wide range of fabrics adapted for cleaning bare floors” (see paragraph [0024] of the application). To clean, the implement must be able to pick up dust and debris, and all fabrics, including all air-permeable fabrics, are not inherently adapted for cleaning. Thus, the Keltner disclosure of a fabric outer layer does not meet the cleaning implement limitation simply because the outer layer can be made of fabric.

In any case, claim 25 has been amended to further specify that the cleaning implement is impregnated with liquid, and Keltner has no disclosure of a liquid impregnated outer layer. Not only is a liquid-impregnated outer layer absent from the Keltner disclosure, but a person skilled in the floor cleaning art would dismiss Keltner as a cleaning element. There is no motivation to impregnate liquid into the Keltner outer cover. A liquid impregnated outer layer for the Keltner stadium cushion would undesirably result in wetting the rear end of the user upon sitting on the cushion and/or wetting of the surface upon which the stadium cushion rests.

Keltner further does not disclose the claimed upright handle. The Examiner states that the handle (102) meets the upright handle limitation in claim 25 as it can be considered upright with respect to the surface from which it extends. However, an upright handle in the floor cleaner art and as described in the present application is a handle that a user can grasp while standing in an upright position for moving the cleaner across the surface to be cleaned. For clarity, Applicant has amended claim 25 to further describe the upright handle as such. The handle (102), or any other element of the Keltner stadium cushion, is not able to be grasped by a user standing in an upright position to move the device across a surface; therefore, Keltner does not disclose the claimed upright handle.

From the above discussion, it follows that Keltner does not disclose at least the liquid impregnated cleaning implement and upright handle of claim 25. Keltner, therefore, does not anticipate claim 25, and claim 25 is patentable over Keltner. Claims 4, 7-11, and 20 depend

directly or indirectly from claim 25 and are not anticipated by and are patentable over Keltner for at least the same reasons as claim 25.

As discussed above, claim 27 is similar to claim 25 in that claim 27 has the same liquid impregnated cleaning implement element as claim 25, and the arguments presented above for claim 25 with respect to the liquid impregnated cleaning implement apply to claim 27 and will not be repeated here for brevity. It follows that claim 27 is not anticipated by and is patentable over Keltner as Keltner does not disclose the liquid impregnated cleaning implement. Claim 29 depends directly from claim 27 and is not anticipated by and is patentable over Keltner for at least the same reasons as claim 27.

Claims 6-12, 20, 21, 25, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,971,471 to Sloan. The rejection is respectfully traversed.

Sloan discloses a mop assembly (10) comprising a handle (54) pivotally mounted to a mop head (16). A disposable mop (12) comprising a layered arrangement of a backing layer (34), an impermeable layer (32), a sponge layer (36), and a lower cloth layer (40) can be removably attached to the mop head (16). Further, the mop (12) includes a disposable plenum (18) located between the impermeable layer (32) and the sponge layer (36) and connectable to a fluid supply line (50) extending through the mop head (16). The fluid supply line (50) supplies wax and cleaning fluids to the plenum (18), which distributes the fluid to the sponge layer (36) for application of the fluid to the surface through the lower layer (40). A fluid reservoir (60) located remotely from the mop head (16), such as in a backpack (62) carried by a user, supplies the fluid to the fluid supply line (50). An optional protective cloth (46) can be wrapped around the layered arrangement and mounted to slitted plastic openings (48) on the top of the mop head (16).

As the Examiner is well aware, the Supreme Court reiterated in *KSR International Co. vs. Teleflex Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007), that the framework for the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). The question of obviousness must be resolved on the basis of these factual determinations. "...the [*Graham*] factors continue to define the inquiry that controls." *KSR*, 550 U.S. 82 U.S.P.Q.2d at 1391. While the ultimate determination of

obviousness is a legal conclusion, the underlying Graham inquiries are factual. Once the findings of fact are articulated, an explanation must be provided to support an obviousness rejection under 35 U.S.C. § 103.

Claim 25, as amended, calls for the thermal storage body to be self-contained. That is, the thermal storage body associated with the cleaning head of the bare floor cleaner contains in itself all that is necessary to store thermal energy and to release the stored thermal energy over an extended period of time to the cleaning implement. The self-containment of the thermal storage body is supported by the text and figures of the present application as filed. The thermal storage body of the present invention may be placed in a heating device to transfer the thermal energy to the thermal storage body, but the thermal energy in all of the described embodiments is actually stored and released by materials already present in the thermal storage body. The body does not receive any fluids or other materials that perform the function of storing thermal energy and releasing the stored thermal energy over an extended period of time; receipt of such materials is unnecessary as the self-contained thermal storage body is already capable of these functions. In short, the thermal storage body itself stores and releases the thermal energy and does not require the addition of something else that performs the storing and releasing functions.

Applying the second of the *Graham* factual inquiries of ascertaining the differences between the claimed invention and the prior art, the Sloan prior art reference does not disclose a self-contained thermal storage body. The Examiner refers to the Sloan plenum (18) or sponge layer (36) as the claimed thermal storage body (see the Office Action, page 5, first paragraph). The plenum (18) or sponge layer (36) requires heated fluid passing from the fluid reservoir (60) and through fluid supply line (50) to the plenum (18) or sponge layer (36) for storing and releasing heat. As the alleged thermal storage body needs the supply of heated fluid into the plenum (18) or sponge layer (36) to store and release thermal energy, the thermal energy body identified by the Examiner is not self-contained; the alleged thermal storage body cannot store and release thermal energy without an external fluid that *itself* performs the function of storing and releasing thermal energy. Further, Sloan does not disclose using thermal energy to clean, much less heating any portion of the mop assembly, including the fluid stored in the fluid reservoir (60) and dispensed through the fluid supply line (50) to the plenum (18).

These differences between Sloan and the claimed invention and the claimed invention as a whole would not have been obvious to one of ordinary skill in the art at the time of the invention. In particular, it would not have been obvious to one of ordinary skill in the art to add a thermal storage body in the Sloan mop assembly, including a thermal storage body that requires the supply of heated fluid for storing and releasing thermal energy. Sloan does not contemplate using heat to clean and has no disclosure of heating the fluid. The Examiner agrees that Sloan does not disclose heated fluid and claims that because it is well known to heat cleaning fluids and wax to increase cleaning action that it would have been obvious to do so. However, the Sloan mop assembly is not amenable to heating the fluid, likely due to, at least in part, the fact that Sloan does not contemplate heating the fluid. The fluid reservoir (60) in the preferred embodiment is carried in a backpack (62) to be worn on the user's back; it would not have been obvious to heat the fluid in the fluid reservoir (60) because the heat may transfer to the user's back, which would be uncomfortable to the user if not implausible due to excessive heat transfer. Using an in-line fluid heater to heat the fluid would also not have been obvious because the heater would require a power source, and the mop assembly is not configured for connection to a power supply.

Because it would not have been obvious to one of ordinary skill in the art to have any type thermal storage body in the Sloan mop assembly, it follows that it would not have been obvious to modify the Sloan mop assembly with a self-contained thermal storage body. Sloan provides no motivation to modify the mop assembly as such, and there is no reason that would lead one of ordinary skill in the floor cleaning art to look to a self-contained thermal storage body to store thermal energy and release thermal energy to the cleaning implement. If, assuming, *arguendo*, that the Examiner's position of using heated fluid passing through the mop assembly to store and release thermal energy is adopted, then it would have been especially not obvious to employ a self-contained thermal storage body as doing so would be unnecessary and redundant because the heated fluid passing through the plenum (18) and sponge layer (36) would be performing the functions of storing and releasing thermal energy.

In summary, neither the differences between Sloan and the invention in claim 25, *i.e.*, the self-contained thermal storage body, nor the claimed invention as a whole would not have been

obvious to one of ordinary skill in the art at the time of the invention. Claim 25 is, therefore, not obvious in view of and is patentable over Sloan. Claims 6-12, 20, and 21 depend directly or indirectly from claim 25 and are, thus, not obvious in view of and are patentable over Sloan for at least the same reasons as claim 25.

As discussed above, claim 27 is similar to claim 25 in that claim 27 has the same self-contained thermal storage body element as claim 25, and the arguments presented above for claim 25 with respect to the self-contained thermal storage body apply to claim 27 and will not be repeated here for brevity. It follows that claim 27 is not obvious in view of and is patentable over Sloan for at least the same reasons as claim 25.

New claims 32-34 depend from claims 25-27, respectively, and further define the liquid impregnated into the cleaning implement. These claims are believed to be patentable over the prior art for at least the same reasons set forth above with respect to claims 25-27.

If there are any outstanding issues which the Examiner feels may be resolved by way of telephone conference, the Examiner is cordially invited to contact the undersigned to resolve these issues. Early notification of allowability is respectfully requested.

Respectfully submitted,

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